

REMARKS

This application has been reviewed in light of the Office Action dated April 13, 2004. Claims 1-8, 11-13, 21, 24-31, 57-64, 67-69, 77, 80-87, 113-120, 123-125, 133, 136-143, 169-176, 179-181, 189, and 192-199 are presented for examination, Claims 1, 57, 113, and 169, which are independent claims, have been amended to define still more clearly what Applicants regard as their invention. Claims 2-6, 21, 58-62, 77, 80, 114-118, 133, 170-174, and 189 have been amended to ensure consistency of terminology.

Favorable reconsideration is requested.

Applicants note with appreciation the allowance of Claims 25-31, 81-87, 137-143, and 193-199.

Claims 1, 57, 113, and 169 were rejected under 35 U.S.C. § 112, second paragraph, as indefinite.

The term “processing” in the interrupt control feature of Claims 1, 57, 113, and 169, refers to at least one of analyzing print data, generating image data and forming an image (Steps S901, S903 and S904 of Figure 9).¹ For example, if analysis processing is in progress, this processing is interrupted in response to an interrupt instruction. Similarly, if both analysis processing and image formation processing are in progress, both of the processings are interrupted, or if analysis processing is completed but image formation processing is in progress, the image formation processing is interrupted in response to an interrupt instruction.

As to the Examiner’s inquiry regarding the final “wherein” clause of Claim 1, Applicants have amended this clause to recite --wherein said generation means analyzes

¹/It is to be understood, of course, that the claim scope is not limited by the details of the described embodiments, which are referred to only to facilitate explanation.

the print data of the interrupted print job, including the print data portion that has already been analyzed by said generation means, stored in said storing means after the analysis of the print data of the identified print job is completed--. Thus, the generation means also analyzes the print data portion that had already been analyzed by the generation means. Similar amendments have been made to independent Claims 57, 113, and 169.

Applicants believe that the rejection under Section 112, second paragraph, has been obviated, and its withdrawal is therefore respectfully requested.

Claims 1-4, 7, 8, 11-13, and 21 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,130,757 (*Yoshida et al.*), and Claims 5, 6, and 24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Yoshida et al.*, in view of U.S. Patent No. 5,996,029 (*Sugiyama*). The Office Action also states that “Claims 57-64, 67-69, 77, 80, 113-120, 123-125, 133, 136, 169-176, 179-181, 189, and 192 are . . . similarly rejected.” However, the Office Action does not explicitly state which specific rejection(s) apply to those claims.

As shown above, Applicants have amended independent Claims 1, 57, 113, and 169 in terms that more clearly define what they regard as their invention. Applicants submit that these amended independent claims, together with the remaining claims dependent thereon, are patentably distinct from the cited prior art for at least the following reasons.

The aspect of the present invention set forth in Claim 1 is a print control apparatus for receiving a print job including print data from an external apparatus and controlling an image forming section to form an image based on image data. The apparatus includes storing means, generation means, image formation control means, and interrupt control means. The storing means stores print data. The generation means

generates image data by analyzing the print data. The image formation control causes the image forming section to form the image based on the image data generated by the generation means. The interrupt control means, in response to an interrupt instruction identifying a print job, interrupts processing of a print job not identified by the interrupt instruction and controls the generation means to analyze print data of the print job identified in the interrupt instruction. The storing means stores print data of the interrupted print job, including a print data portion that has already been analyzed by the generation means, until formation of an image based on image data generated from the print data of the identified print job by the image forming section is completed, and the generation means analyzes the print data of the interrupted print job, including the print data portion that has already been analyzed by the generation means, stored in the storing means after analysis of print data of the identified print job is completed.

Among other important features of Claim 1 are that the storing means stores print data of the interrupted print job, including a print data portion that has already been analyzed by the generation means, until formation of an image based on image data generated from the print data of the identified print job by the image forming section is completed, and the generation means analyzes the print data of the interrupted print job, including the print data portion that has already been analyzed by the generation means, stored in the storing means after analysis of print data of the identified print job is completed. That is, print data of an interrupted print job is maintained, including a print data portion of the interrupted print job that has already been analyzed, in the storing means until formation of an image based on print data of an identified (interrupt) job is completed. After the analysis of the print data of the identified (interrupt) print job, the generation means analyzes the print data of the interrupted print job, including the print

data portion that has already been analyzed. Accordingly, the portion of the print data that had already been analyzed is analyzed again. By virtue of the feature, because the print data of the interrupted print job, including the portion already analyzed, is stored in the storing means until formation of an image based on the image data generated from the print data of the identified (interrupt) print job is completed, it is not necessary to retrieve only the portion of the print data not previously analyzed when resuming processing of the interrupted print job. Thus, the interrupt/resumption process is simplified (page 19, lines 18-24, and page 43, line 25, to page 44, line 13 of the specification).

Yoshida et al. relates to a network system. In the *Yoshida et al.* system, composed of server apparatuses and a client apparatus, the client apparatus requests the server apparatuses to publish functions they can provide by using a function information requesting unit, receives information on such functions, and generates a guidance menu based on the received information.

Nothing has been found in *Yoshida et al.* that would teach or suggest storing means storing print data of the interrupted print job, including a print data portion that has already been analyzed by the generation means, until formation of an image based on image data generated from the print data of the identified print job by the image forming section is completed, and the generation means analyzing the print data of the interrupted print job, including the print data portion that has already been analyzed by the generation means, stored in the storing means after analysis of print data of the identified print job is completed, as recited in Claim 1. *Yoshida et al.* discusses suspending a current job and writing job suspension information in a table (step S91 of Figure 25). However, *Yoshida et al.* fails to teach or suggest that a print data portion, of a suspended job, that has already been analyzed is maintained in a memory. *Yoshida et al.* discusses that when resuming the

suspended job, the operation instruction information included in the job suspension information is used (column 11, lines 26-28). Applicants understand that the resumption of a job in *Yoshida et al.* starts from where the process was suspended, and therefore a portion of that job that has already been analyzed is not maintained for a second analysis operation.

Accordingly, for at least the above reasons, Applicants submit that Claim 1 is not anticipated by *Yoshida et al.*

Independent Claims 57, 113, and 169 are method, computer-readable memory medium and print control program claims, respectively, corresponding to apparatus Claim 1, and are believed to be patentable over *Yoshida et al.* for substantially the same reasons as discussed above in connection with Claim 1.

A review of the other art of record, including *Sugiyama*, has failed to reveal anything which would, in Applicants' opinion, remedy the deficiencies of *Yoshida et al.* as a reference against the independent claims herein. Those claims are therefore believed to be patentable over the art of record.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

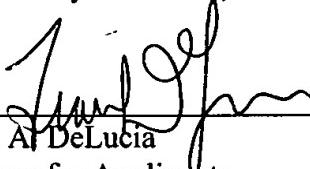
This Amendment After Final Action is believed clearly to place this application in condition for allowance and, therefore, its entry is believed proper under 37 C.F.R. § 1.116. Accordingly, entry of this Amendment After Final Action, as an earnest effort to advance prosecution and reduce the number of issues, is respectfully requested.

Should the Examiner believe that issues remain outstanding, it is respectfully requested that the Examiner contact Applicants' undersigned attorney in an effort to resolve such issues and advance the case to issue.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



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